

1/10

FIG. 1A

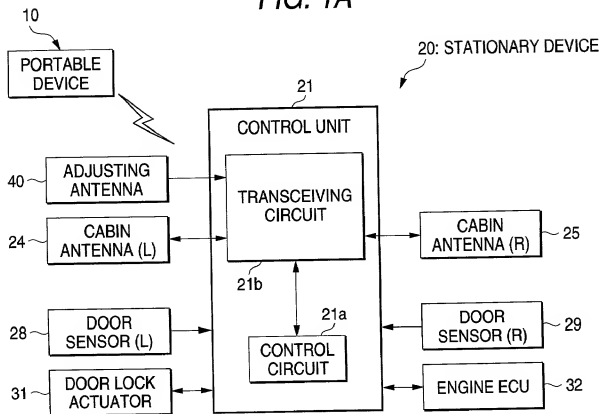
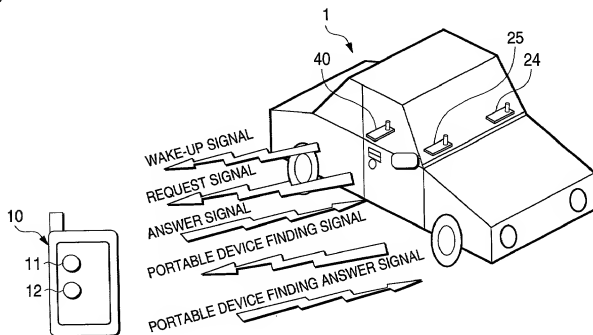


FIG. 1B



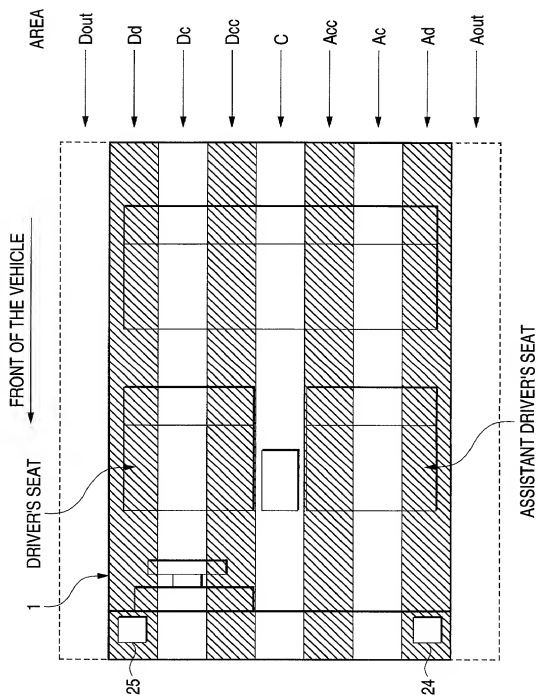
2/10

FIG. 2

PORTABLE DEVICE POSITION	AREA	RELATIONS OF THE TRANSMISSION INTENSITIES FROM THE TWO ANTENNAS		
		$P_1(D1) > P_1(A1)$	$P_1(D2) = P_1(A2)$	$P_1(D3) < P_1(A3)$
OUTSIDE THE VEHICLE ON THE DRIVER'S SEAT	Dout	$E(D1) > > E(A1)$	$E(D2) > > E(A2)$	$E(D3) > E(A3)$
NEAR THE DRIVER'S SEAT	Dd	$E(D1) > E(A1)$	$E(D2) > E(A2)$	$E(D3) > E(A3)$
	Dc	$E(D1) > E(A1)$	$E(D2) > E(A2)$	$E(D3) = E(A3)$
	Dcc	$E(D1) > E(A1)$	$E(D2) > E(A2)$	$E(D3) < E(A3)$
ON THE CENTER LINE OF THE VEHICLE	C	$E(D1) > E(A1)$	$E(D2) = E(A2)$	$E(D3) < E(A3)$
NEAR THE ASSISTANT DRIVER'S SEAT	Acc	$E(D1) > E(A1)$	$E(D2) < E(A2)$	$E(D3) < E(A3)$
	Ac	$E(D1) = E(A1)$	$E(D2) < E(A2)$	$E(D3) < E(A3)$
	Ad	$E(D1) < E(A1)$	$E(D2) < E(A2)$	$E(D3) < E(A3)$
OUTSIDE THE VEHICLE ON THE ASSISTANT DRIVER'S SEAT	Aout	$E(D1) < E(A1)$	$E(D2) < E(A2)$	$E(D3) < E(A3)$

3/10

FIG. 3



**FIG. 4A**

MODE	
1	$E(D) > E(A)$
2	$E(D) > E(A)$
3	$E(D) = E(A)$
4	$E(D) < E(A)$
5	$E(D) < E(A)$

**FIG. 4B**

AREA	MODE COMBINATION
Dout	112
Dd	222
Dc	223
Dcc	224
C	234
Acc	244
Ac	344
Ad	444
Aout	455

5/10  
**FIG. 5**

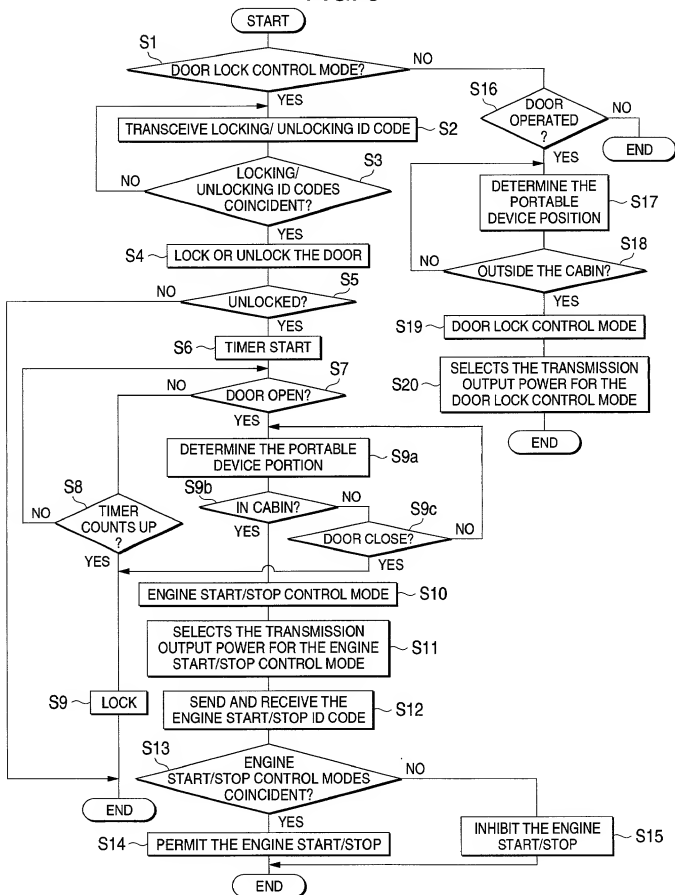


FIG. 6

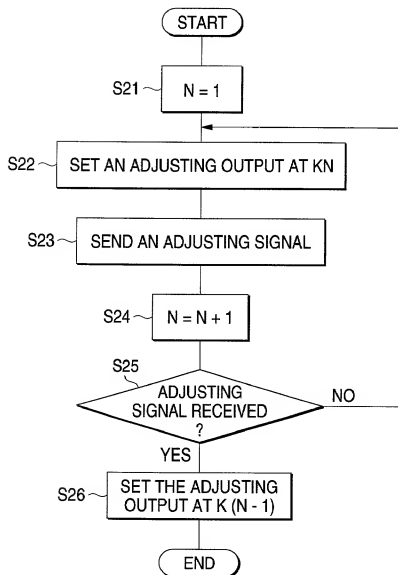
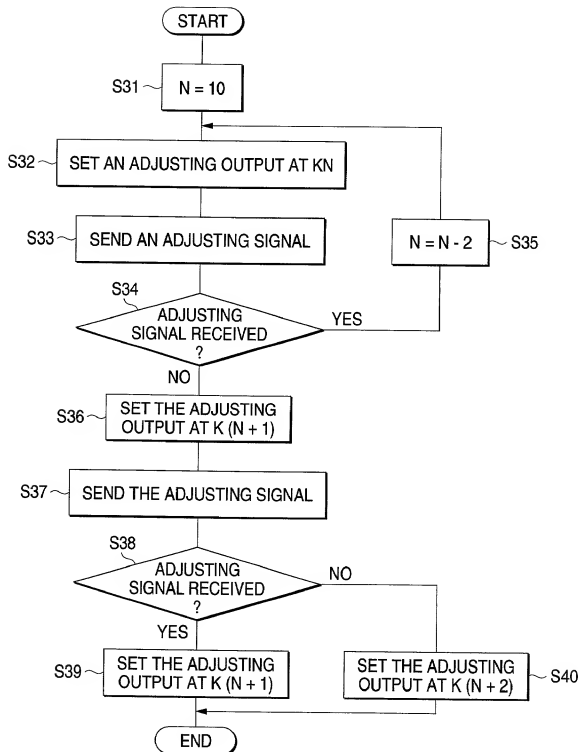


FIG. 7



8/10

FIG. 8A

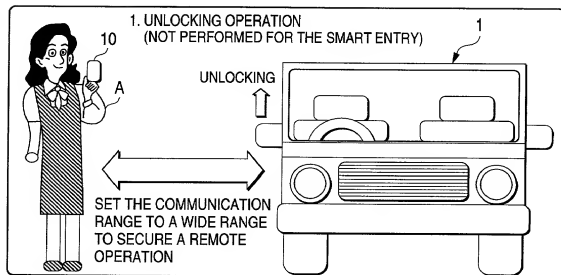


FIG. 8B

2. GET IN THE VEHICLE WHILE CARRYING THE PORTABLE DEVICE. AT THIS TIME, SPECIFY A POSITION OF THE PORTABLE DEVICE AND ITS MOTION.

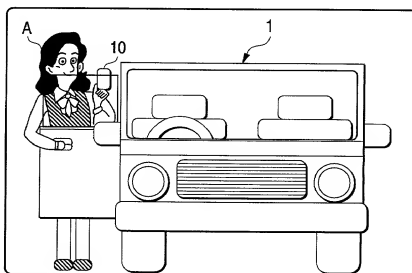
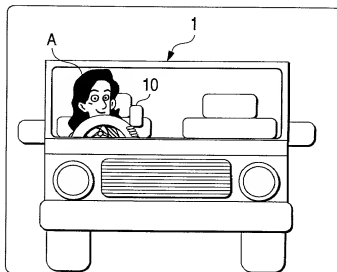


FIG. 8C

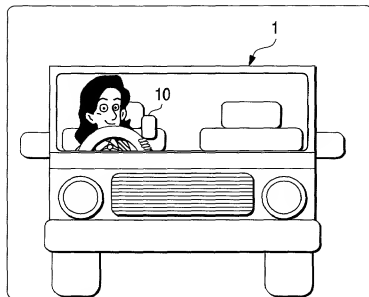
3. MAKE AN AUTHENTICATION FOR THE PERMISSION OF ENGINE START. SELECT THE NARROWEST COMMUNICATION RANGE (IN-CABIN COMMUNICATION RANGE) NECESSARY FOR THE AUTHENTICATION.



9/10

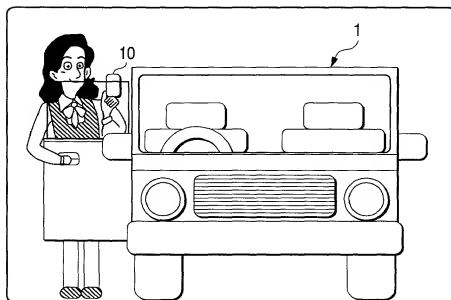
**FIG. 9A**

1. THE USER HOLDS THE PORTABLE DEVICE, AND  
THE DEVICE HAS AN AUTHENTICATION CODE.



**FIG. 9B**

2. GET OFF THE VEHICLE WHILE HOLDING THE PORTABLE  
DEVICE. AT THIS TIME, SPECIFY A POSITION OF THE  
PORTABLE DEVICE AND ITS MOTION.



10/10

FIG. 10A

3. LEAVE VEHICLE WHILE HOLDING THE PORTABLE DEVICE. AT THIS TIME, DETECT THE USER GETS OFF THE VEHICLE, FROM THE PORTABLE DEVICE'S MOTION.

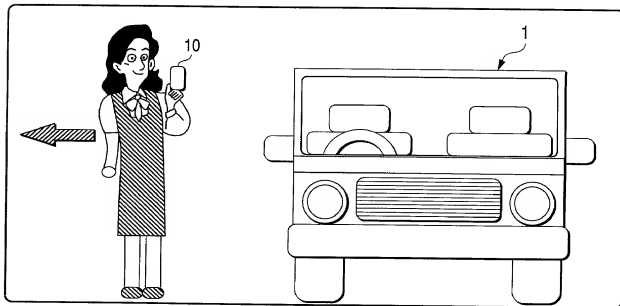


FIG. 10B

4. THE STATIONARY DEVICE CANNOT COMMUNICATE WITH THE PORTABLE DEVICE, AND RECOGNIZES THAT THE PORTABLE DEVICE IS NOT WITHIN THE CABIN, AND LOCKS THE DOOR.

